

SAMSUNG

INSTALLATION MANUAL

UH052EAMC
UH070EAM(1)C
UH094EAM1C
UH105EAMC

ENGLISH

ESPAÑOL

FRANÇAIS

ITALIANO

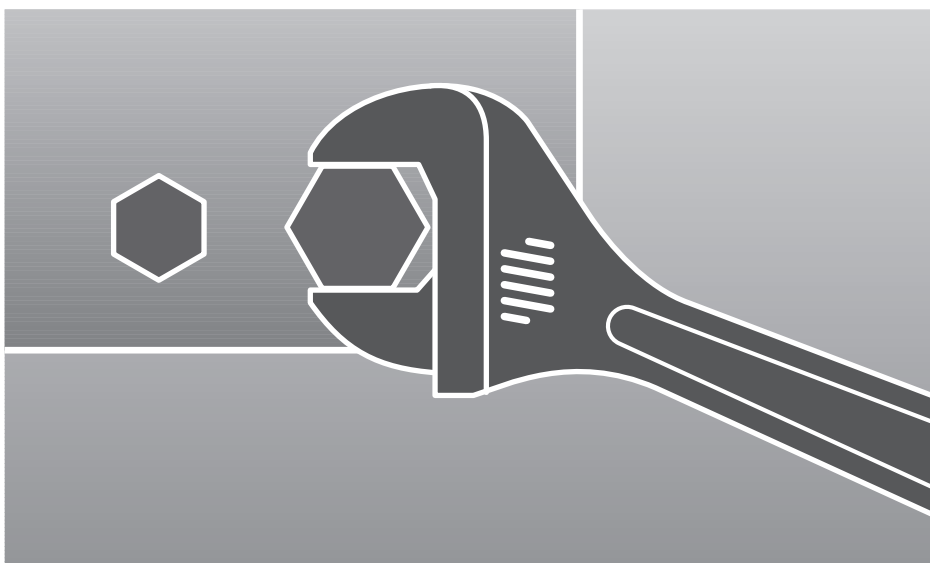
PORTUGUÊS

DEUTSCH

ΕΛΛΗΝΙΚΑ

RUSSIAN

System Air Conditioner(Cooling and Heating)



Safety Precautions

The following safety precautions must be taken when using your air conditioner.



WARNING

Risk of electric shock. • Can cause injury or death. • Disconnect all remote electric power supplies before servicing, installing or cleaning. • This must be done by the manufacturer or its service agent or a similar qualified person in order to avoid a hazard.

INSTALLING THE UNIT

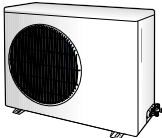

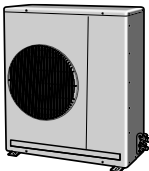
- ◆ The unit should not be installed by the user. Ask the dealer or authorized company to install the units except room air conditioners for the U.S.A and Canada area.
- ◆ If the unit is installed improperly, water leakage, electric shock or fire may result.
- ◆ Mount with the lowest moving parts at least 2.5 m above the floor or grade level. (If applicable)
- ◆ The manufacturer does not assume responsibility for accidents or injury caused by an incorrectly installed air conditioner. If you are unsure about installation, contact an installation specialist.
- ◆ When installing the built-in type air conditioner, keep all electrical cables such as the power cable and the connection cord in pipe, ducts, cable channels e.t.c to protect them against liquids, outside impacts and so on.

POWER SUPPLY LINE, FUSE OR CIRCUIT BREAKER

- ◆ If the power cord of this air conditioner is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- ◆ The unit must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring with a contact opening of >3mm.
- ◆ Do not use an extension cord with this product.
- ◆ If the unit is equipped with a power supply cord and a plug, the plug must be accessible after installation.
- ◆ The air conditioner must be installed in accordance with national wiring regulations and safety regulations wherever applicable.

Contents

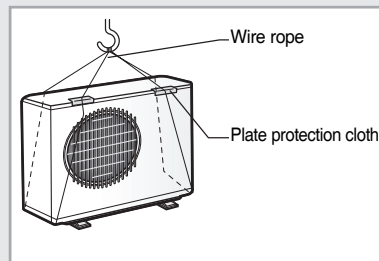
■ Preparation for outdoor unit installation	5
■ Air Conditioner and Accessories	5
■ Deciding where to install the outdoor unit	6
■ Outdoor unit installation	9
■ Connecting the cable	10
■ Connecting the refrigerant pipe	13
■ Connecting up and removing air in the circuit	14
■ Cutting / Flaring the pipes	15
■ Performing leak tests	16
■ Connecting the drain hose to the outdoor unit	16
■ Insulation	16
■ Using stop valve	17
■ Adding refrigerant	18
■ Checking correct grounding	20
■ Setting up option switches	21
■ Testing operations	23
■ Troubleshooting	25
■ Optional parts list	26

Type of outdoor unit	A	B	C
Design			
Model	UH052EAMC UH070EAM(1)C	UH094EAM1C	UH105EAMC

Preparation for outdoor unit installation

Moving the Outdoor Unit by Wire Rope



Fasten the outdoor unit by two 8m or longer wire ropes as shown at the figure. To prevent from damage or scratches, insert a piece of cloth between the outdoor unit and rope, then move the unit.



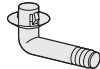


Air Conditioner and Accessories

The following accessories are supplied with the air conditioner.
The type and quantity may differ depending on the specifications.






◆ UH052EAMC

Rubber legs 	Installation manual 
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◆ UH070EAM(1)C & UH094EAM1C

Drain Plug 	Rubber legs 	Installation manual 
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◆ UH105EAMC

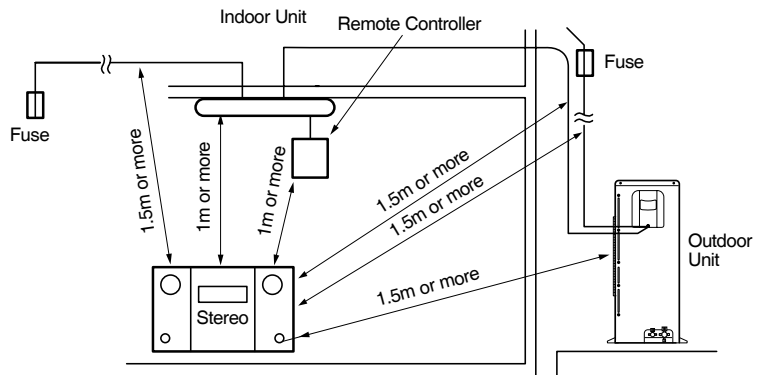
Flare Nuts 3/8" 	Cap Drain A 	Rubber Bracket Wire 	Drain Plug 	Installation manual 
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Note ◆ Refrigeration pipes and their insulating materials, power cables are not supplied.

Deciding where to install the outdoor unit

Outdoor Unit

- ◆ The outdoor unit must not be placed on its side or upside down, as the compressor lubrication oil will run into the cooling circuit and seriously damage the unit.
- ◆ Choose a location that is dry and sunny, but not exposed to direct sunlight or strong winds.
- ◆ Do not block any passageways or thoroughfares.
- ◆ Choose a location where the noise of the air conditioner when running and the discharged air do not disturb any neighbours.
- ◆ Choose a position that enables the pipes and cables to be easily connected to the indoor unit.
- ◆ Install the outdoor unit on a flat, stable surface that can support its weight and does not generate any unnecessary noise and vibration.
- ◆ Position the outdoor unit so that the air flow is directed towards the open area.
- ◆ Maintain sufficient clearance around the outdoor unit, especially from a radio, computer, stereo system, etc.



- ◆ If the outdoor unit is installed at a height, ensure that its base is firmly fixed in position.
- ◆ Make sure that the water dripping from the drain hose runs away correctly and safely.

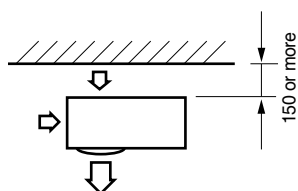
CAUTION

- ◆ ***You have just purchased a system air conditioner and it has been installed by your installation specialist.***
- ◆ ***This device must be installed according to the national electrical rules.***

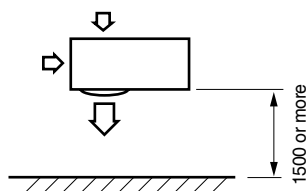
Space Requirements for Outdoor Unit

When installing 1 outdoor unit

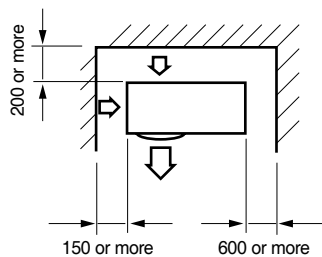
Unit : mm



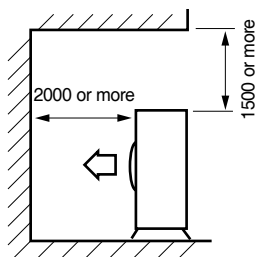
* When the air outlet is opposite the wall



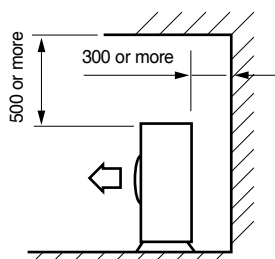
* When the air outlet is towards the wall



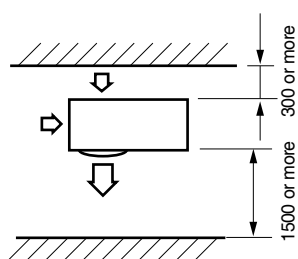
* When 3 sides of the outdoor unit are blocked by the wall



* The upper part of the outdoor unit and the air outlet is towards the wall



* The upper part of the outdoor unit and the air outlet is opposite the wall

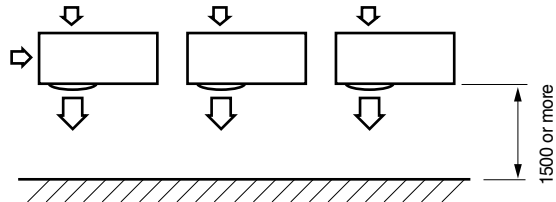


* When front and rear side of the outdoor unit is towards the wall

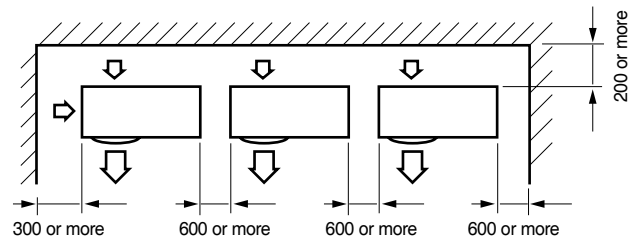
Deciding where to install the outdoor unit (Continued)

When installing more than 1 outdoor unit

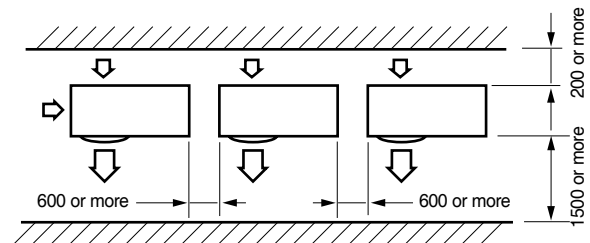
Unit : mm



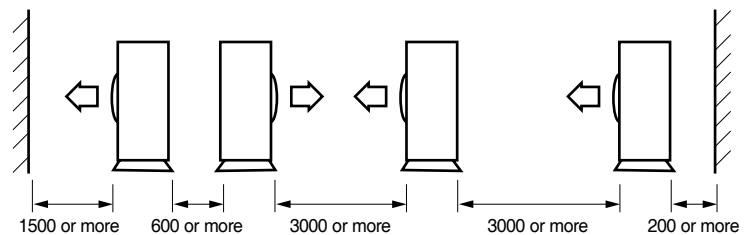
* When the air outlet is towards the wall



* When 3 sides of the outdoor unit are blocked by the wall



* When front and rear side of the outdoor unit is towards the wall



* When front and rear side of the outdoor unit is towards the wall

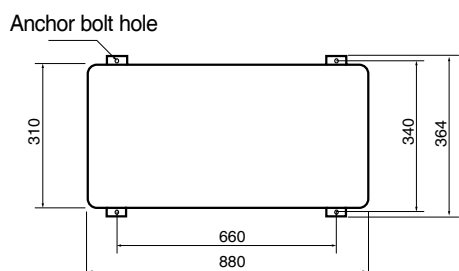
Outdoor unit installation

The outdoor unit must be installed on a rigid and stable base to avoid any increase in the noise level and vibration, particularly if the outdoor unit is to be installed in a location exposed to strong winds or at a height, the unit must be fixed to an appropriate support(wall or ground).

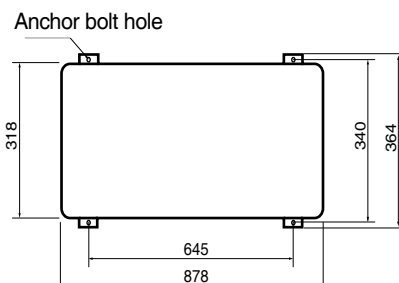
Fix the outdoor unit with anchor bolts.

Note ♦ The anchor bolt must be 20mm or higher from the base surface.


Unit : mm

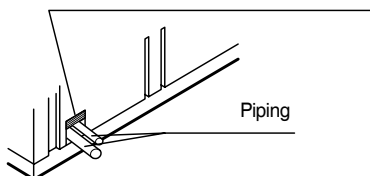


Type A,B



Type C

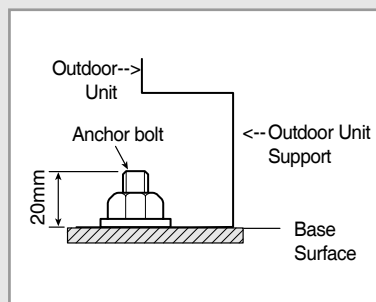
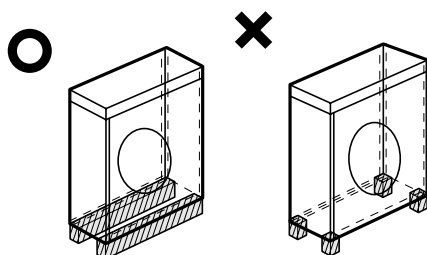
To prevent the unit against a wild animal or something, cover  part after connecting the pipe.



CAUTION

- ♦ **Make a drain outlet around the base for outdoor unit drainage.**
- ♦ **If the outdoor unit is installed on the roof, you have to check the ceiling strength and waterproof the unit.**

Outdoor Unit Support



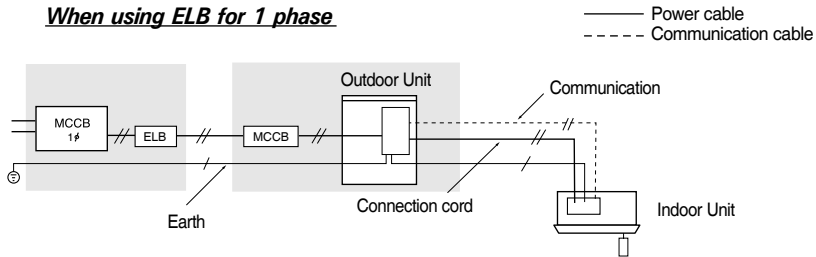
Connecting the cable

Two electronic cables must be connected to the outdoor unit.

- ◆ The connection cord between indoor unit and outdoor unit.
- ◆ The power cable between outdoor unit and auxiliary circuit breaker.
- ◆ Specially for Russian and European market, before installation, the supply authority should be consulted to determine the supply system impedance to ensure compliance.

Example of Air Conditioner System

When using ELB for 1 phase



- * If an outdoor unit is installed in a place in danger of an electric leak or submergence, you must install the ELB.

Power Cable Specifications

Type of outdoor unit	Power Supply												Earth Cable
	B						Single Phase						
	Power Supply	Max/Min (V)	MCCB	ELB	Power Cable	Length	Power Supply	Max/Min (V)	MCCB	ELB	Power Cable	Length	
A	-	-	-	-	-	-	220-240V~ /50Hz	±10%	Frame: 30A Trip: 20A	20A	2.5mm², 2 Wires	20m or less	Ø1.6mm, 1 Wire
B,C	-	-	-	-	-	-	220-240V~ /50Hz	±10%	Frame: 30A Trip: 25A	25A	3.5mm², 2 Wires	20m or less	Ø1.6mm, 1 Wire

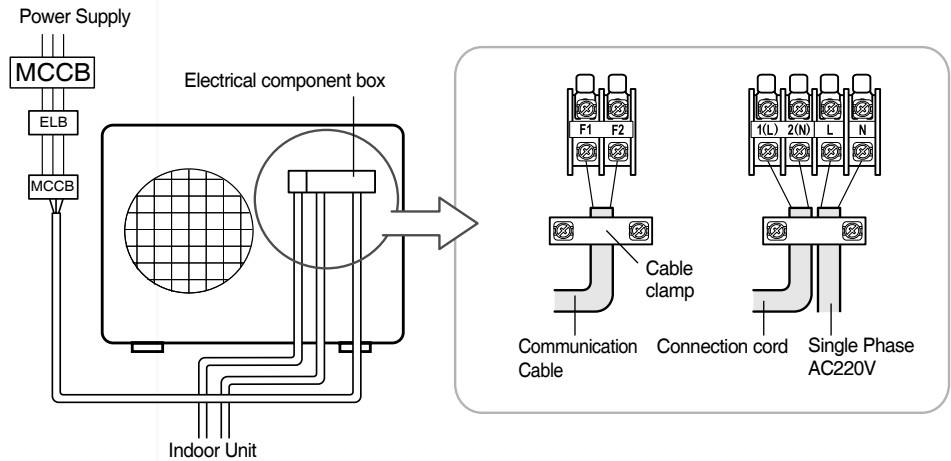
* The power cable is not supplied with air conditioner.

* For power cable, use the grade H07RN-F or H05RN-F materials.

Connecting the cable (Continued)

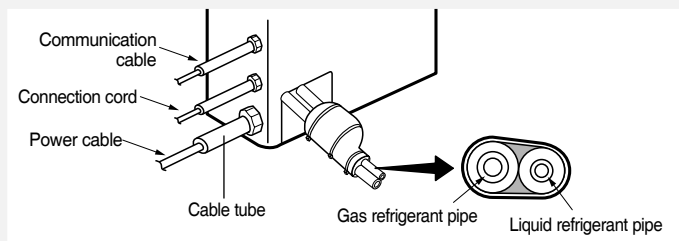
■ Wiring Diagram of Power Cable

When using ELB for 1 phase



CAUTION

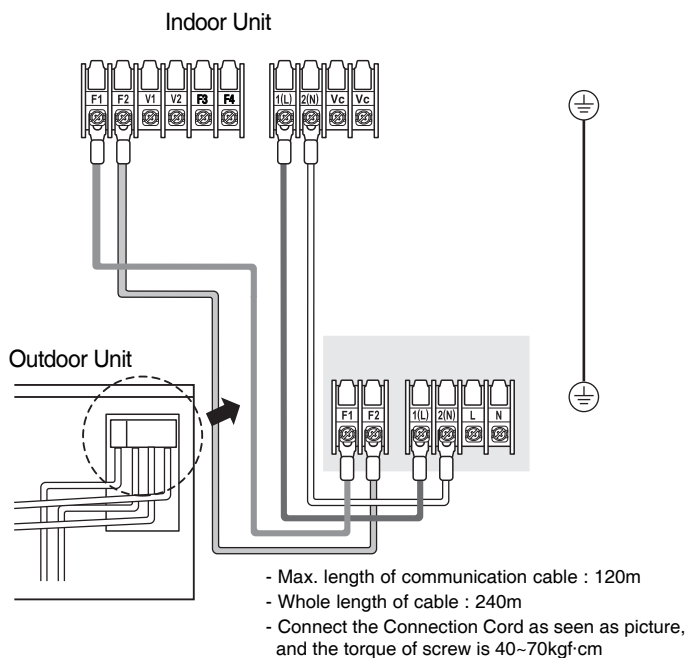
- ◆ **You should connect the power cable into the power cable terminal and fasten it with a clamp.**
- ◆ **The unbalanced power must be maintained within 2% of supply rating.**
- If the power is unbalanced greatly, it may shorten the life of the condenser. If the unbalanced power is exceeded over 4% of supply rating, the indoor unit is protected, stopped and the error mode indicates.
- ◆ **To protect the product from water and possible shock, you should keep the power cable and the connection cord of the indoor and outdoor units in the iron pipe.**
- ◆ **Connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring($\geq 3\text{mm}$).**
- ◆ **When connecting cables, make the cable pass through the cable tube as shown at the figure.**



- ◆ **Must keep the cable in a protection tube.**
- ◆ **Keep distances of 50mm or more between power cable and communication cable.**

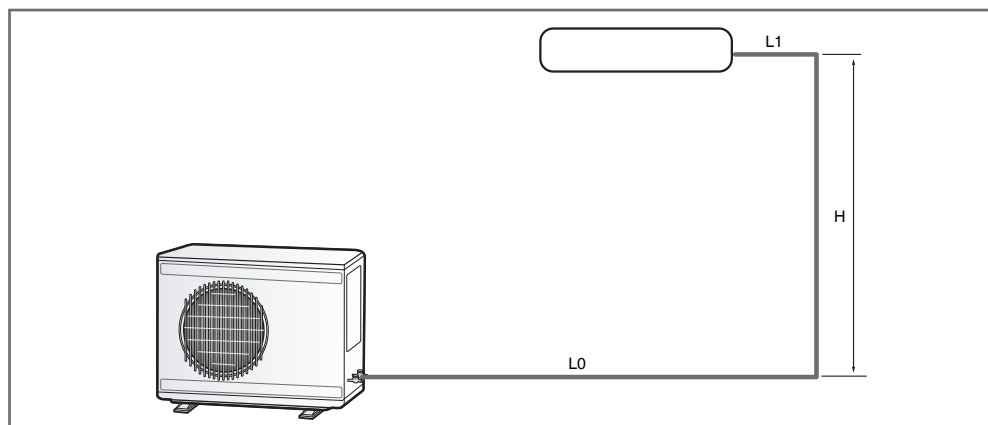
Connecting the cable (Continued)

Wiring Diagram of Connection Cord



Connecting the refrigerant pipe

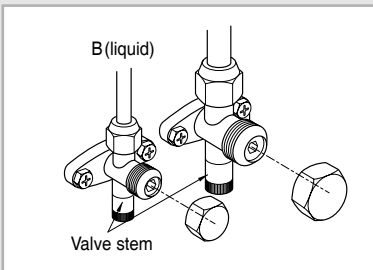
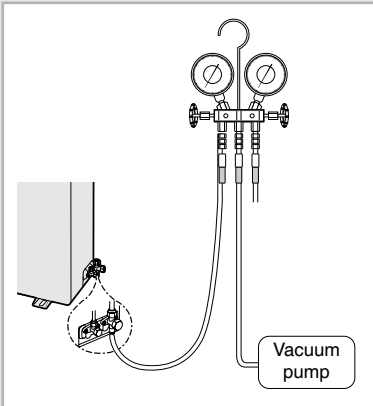
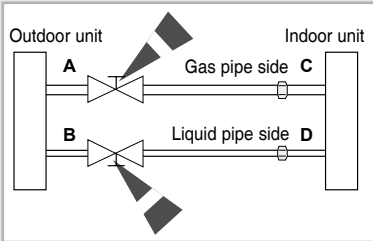
Refrigerant Piping System



Refrigerant piping system table			Pipe length or height	
			UH052EAMC/UH070EAM(1)C/UH094EAM1C	UH105EAMC
Max. allowable length	Actual pipe length	$L0 + H + L1$	30m or less	50m or less
Allowable height length	Actual pipe length	H	15m or less	30m or less

Connecting up and removing air in the circuit

The air in the indoor unit and in the pipe must be purged. If air remains in the refrigeration pipes, it will affect the compressor, reduce to cooling capacity and could lead to a malfunction. Refrigerant for air purging is not charged in the outdoor unit. Use Vacuum Pump as shown at the figure.



- 1 Connect each assembly pipe to the appropriate valve on the outdoor unit and tighten the flare nut.
- 2 Referring to the illustration opposite, tighten the flare nut on section B first manually and then with a torque wrench, applying the following torque.

Outer Diameter	Torque (kgf•cm)
6.35 mm (1/4")	140~170
9.52 mm (3/8")	250~280
12.70 mm (1/2")	380~420
15.88 mm (5/8")	440~480
19.05 mm (3/4")	990~1210
22.23 mm (7/8")	990~1210

- 3 Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port as shown at the figure.
- 4 Open the valve of the low pressure side of manifold gauge counterclockwise.
- 5 Purge the air from the system using vacuum pump for about 10 minutes.
 - ◆ Close the valve of the low pressure side of manifold gauge clockwise.
 - ◆ Make sure that pressure gauge show -0.1MPa(-76cmHg) after about 10 minutes.

This procedure is very important in order to avoid gas leak.

 - ◆ Turn off the vacuum pump.
 - ◆ Remove the hose of the low pressure side of manifold gauge.

- 6 Set valve cork of both liquid side and gas side of packed valve to the open position.

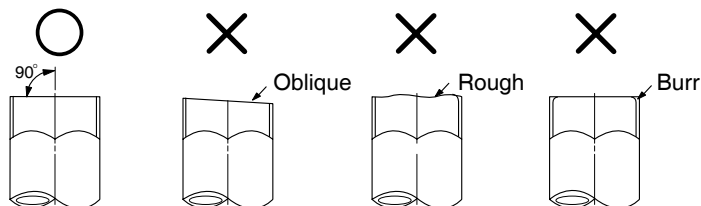
- 7 Mount the valve stem nuts and the service port cap to the valve, and tighten them at the torque of 183kgf•cm with a torque wrench.

- 8 Check for gas leakage.
 - ◆ At this time, especially check for gas leakage from the 3-way valve's stem nuts(A port), and from the service port cap.

Cutting / Flaring the pipes

1 Make sure that you have the required tools available (pipe cutter, reamer, flaring tool and pipe holder).

2 If you wish to shorten the pipes, cut it with a pipe cutter, taking care to ensure that the cut edge remains at a 90° angle with the side of the pipe. Refer to the illustrations below for examples of edges cut correctly and incorrectly.

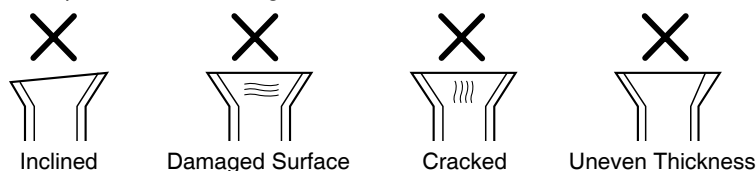


3 To prevent any gas from leaking out, remove all burrs at the cut edge of the pipe, using a reamer.

4 Slide a flare nut on to the pipe and modify the flare.

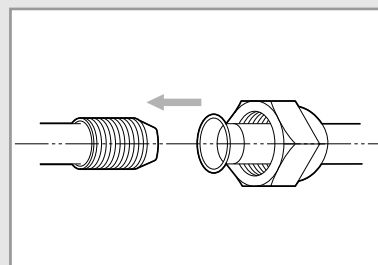
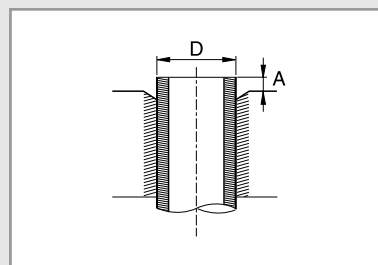
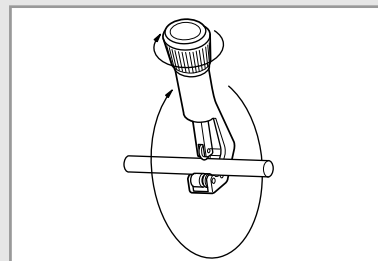
Outer Diameter(D)	Depth (A)
6.35 mm (1/4")	1.3mm
9.52 mm (3/8")	1.8mm
12.70 mm (1/2")	2.0mm
15.88 mm (5/8")	2.2mm
19.05 mm (3/4")	2.2mm
22.23 mm (7/8")	2.2mm

5 Check that the flaring is correct, referring to the illustrations below for examples of incorrect flaring.



6 Align the pipes and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.

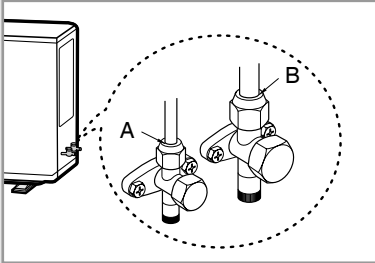
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9.52 mm (3/8")	250~280
12.70 mm (1/2")	380~420
15.88 mm (5/8")	440~480
19.05 mm (3/4")	990~1210
22.23 mm (7/8")	990~1210



CAUTION

◆ In case of welding the pipe, you must weld with nitrogen gas blowing.

Performing leak tests



Before completing the installation (insulation of the hose and piping), you must check that there are no gas leaks.

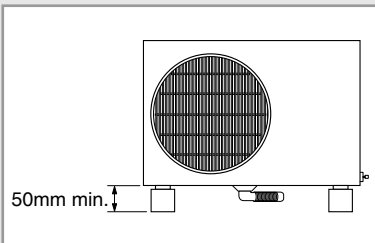
To check for gas leaks on the...

Then, using a leak detector, check the...

Outdoor unit

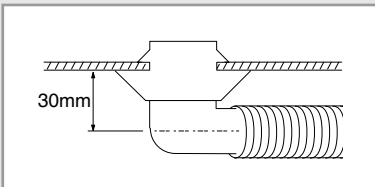
Valves on sections A and B.

Connecting the drain hose to the outdoor unit



When using the air conditioner in the heating mode, ice may accumulate. During de-icing, the condensed water must be drained off safely. Consequently, you must install a drain hose on the outdoor unit, following the instructions below.

- 1 Make space more than 50mm between the bottom of the outdoor unit and the ground for installation of the drain hose, as shown in figure.
- 2 Insert the drain plug into the hole on the underside of the outdoor unit.
- 3 Connect the drain hose to the drain plug.
- 4 Ensure that the drained water runs off correctly and safely.



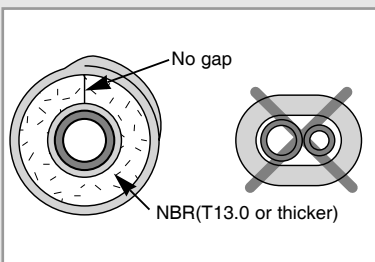
Insulation

Once you have checked that there are no leaks in the system, you can insulate the piping and hose.

- 1 To avoid condensation problems, place an insulator around each refrigerant pipe.

Note

- ◆ When insulate the pipe, be sure to overlap the insulation.
- ◆ You have to use more than 120°C insulation (T13.0 or thicker Acrylonitrile Butadien Rubber) for the gas refrigerant pipe.



Using stop valve

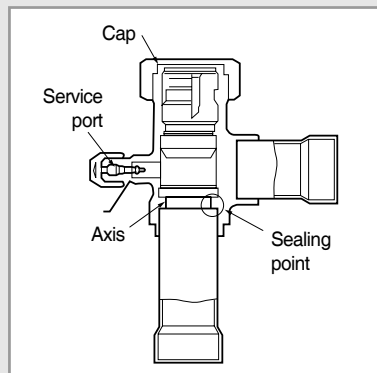
To Open the Stop Valve

1 Open the cap and turn the stop valve counterclockwise by using a hexagonal wrench.

2 Turn it until the axis is stopped.

- Note**
- ◆ Do not apply excessive force to the stop valve and always use special instruments. Otherwise, the stopping box can be damaged and the back sheet can leak.
 - ◆ If the watertight sheet leaks, turn the axis back by half, tighten the stopping box, then check the leakage again. If there is no leakage any more, tighten the axis entirely.

3 Tighten the cap securely.



To Close the Stop Valve

1 Remove the cap.

2 Turn the stop valve clockwise by using a hexagonal wrench.

3 Tighten the axis until the valve reached the sealing point.

4 Tighten the cap securely.

CAUTION

- ◆ When you use the service port, always use a charging hose, too.
- ◆ Check the leakage of refrigerant gas after tightening the cap.
- ◆ Must use a spanner and wrench when you open/tighten the stop valve.

Adding refrigerant

The outdoor unit is loaded with sufficient refrigerant for the standard piping. Thus, refrigerant must be added if the piping is lengthened. This operation can only be performed by a qualified refrigeration specialist. For quantity of adding refrigerant, refer to page 19.

- 1 Check that the stop valve is closed entirely.

- 2 Charge the refrigerant through the service port of liquid stop valve.

Note ♦ Do not charge the refrigerant through the gas side service port.

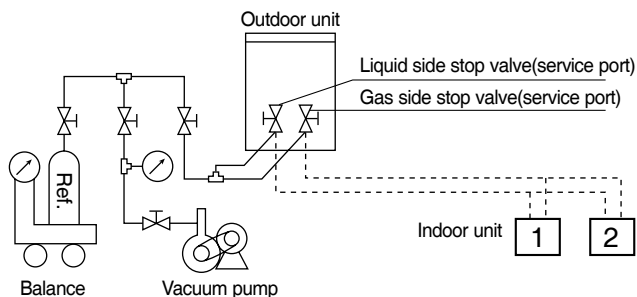
- 3 If you cannot charge the refrigerant according to the upper steps, following these:

3-1 Open both liquid stop valve and gas stop valve.

3-2 Operate the air conditioner by pressing the K2 key on the outdoor unit PCB.

3-3 About 30 minutes later, charge the refrigerant through the service port of gas stop valve.

Note ♦ If necessary, refer to the pressure table classified by outdoor temperature.

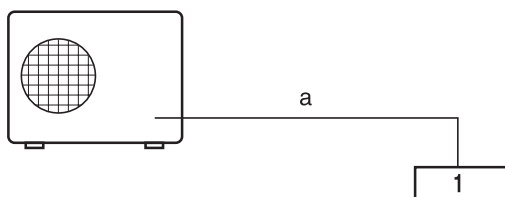


How to Calculate the Quantity of Adding Refrigerant

If you have used more than 7.5m, add "Q" of refrigerant for extrameter
(For maximum piping length and height, refer to page 13)

The quantity of additional refrigerant is variable according to the installation situation. Thus, make sure the outdoor unit situation before adding refrigerant. This operation can only be performed by a qualified refrigeration specialist.

Model	"Q" (R410A)
UH052EAMC	25 g/m
UH070EAM(1)C	40 g/m
UH094EAM1C	60 g/m
UH105EAMC	70 g/m



Piping length "a"	Additional charging amount			
	UH052EAMC	UH070EAM(1)C	UH094EAM1C	UH105EAMC
7.5m	-	-	-	-
10.0m	62.5g	100g	150g	175g
15.0m	187.5g	300g	450g	525g

* For example of UH052EAMC, if pipe length is 10.0m, you would calculate $(10.0 - 7.5) \times 25 = 62.5$

Important information regulation regarding the refrigerant used

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent gases into the atmosphere.

Please fill in with indelible ink,

- ① the factory refrigerant charge of the product,
 - ② the additional refrigerant amount charged in the field and
 - ①+② the total refrigerant charge.
- on the refrigerant charge label supplied with the product.

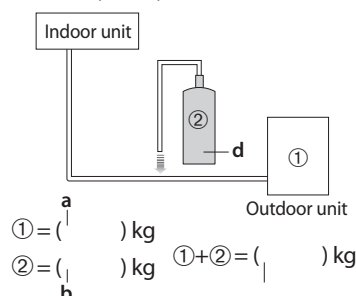
- Note**
- a. Factory refrigerant charge of the product: see unit name plate
 - b. Additional refrigerant amount charged in the field
(Refer to the above information for the quantity of refrigerant replenishment.)
 - c. Total refrigerant charge
 - d. Refrigerant cylinder and manifold for charging

➤ **The filled-out label must be adhered in the proximity of the product charging port (e.g. onto the inside of the stop valve cover).**

Refrigerant type	GWP value
R410A	1975

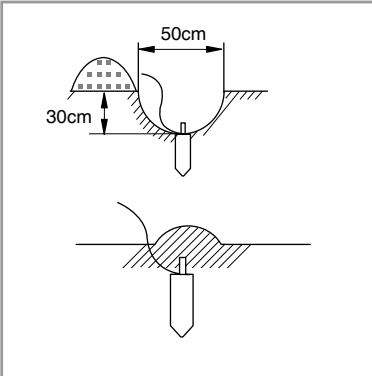
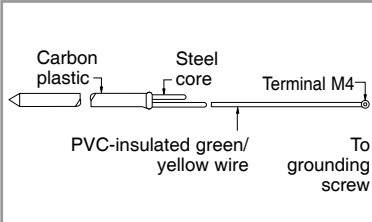
* GWP=Global Warming Potential

Contains fluorinated greenhouse gases covered by the Kyoto Protocol.



Checking correct grounding

If the power distribution circuit does not have an earth or the ground does not comply with specifications, an grounding electrode must be installed. The corresponding accessories are not supplied with the air conditioner.



- 1 Select an grounding electrode that complies with the specifications given in the illustration.

- 2 Determine a suitable location for the grounding electrode:
 - ◆ In damp hard soil rather than loose sandy or gravel soil that has a higher grounding resistance
 - ◆ Away from underground structures or facilities, such as gas pipes, water pipes, telephone lines and underground cables
 - ◆ At least two metres away from a lightening conductor grounding electrode and its cable

Note ◆ The grounding wire for the telephone line cannot be used to ground the air conditioner.

- 3 Finish wrapping insulating tape around the rest of the pipes leading to the outdoor unit.

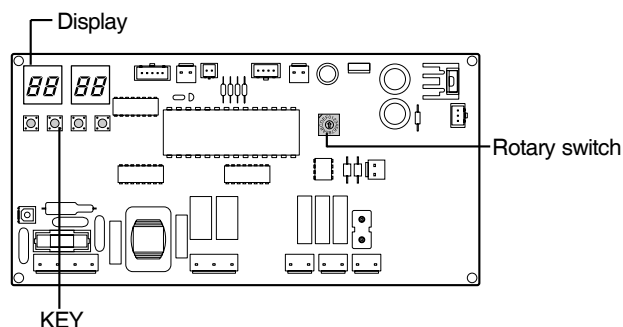
- 4 Install a green/yellow coloured grounding wire:
 - ◆ If the grounding wire is too short, connect an extension lead, in a mechanical way and wrapping it with insulating tape (do not bury the connection)
 - ◆ Secure the grounding wire in position with staples

Note ◆ If the grounding electrode is installed in an area of heavy traffic, its wire must be connected securely.

- 5 Carefully check the installation, by measuring the grounding resistance with a ground resistance tester. If the resistance is above required level, drive the electrode deeper into the ground or increase the number of grounding electrodes.

- 6 Connect the grounding wire to the electrical component box inside of the outdoor unit.

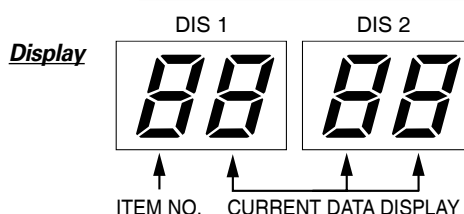
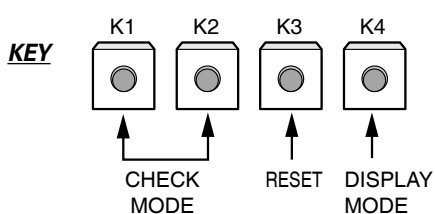
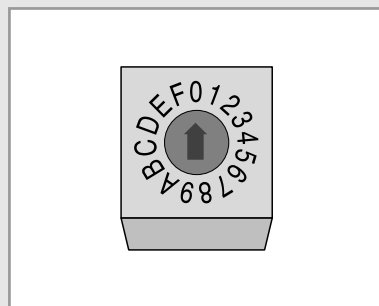
Setting up option switches



Rotary Switch

You should display that how many indoor units are connected to the outdoor unit. Refer to the table below, then turn the arrow to appropriate position.

Switch No.	Number of indoor unit(s)	Switch No.	Number of indoor unit(s)
0 or 1	One	9	Nine
2	Two	A	Ten
3	Three	B	Eleven
4	Four	C	Twelve
5	Five	D	Thirteen
6	Six	E	Fourteen
7	Seven	F	Fifteen
8	Eight	-	-



Summary of KEY functions

Number of press times	Function	K1 (Displayed on SEG 3, 4)	K2 (Displayed on SEG 3, 4)	K3 (Displayed on SEG 3, 4)	K4 (Displayed on SEG 3, 4)
1		Adding refrigerant at heating mode	Adding refrigerant at cooling mode	Reset	Displays data
2		Test operation at heating mode	Test operation at cooling mode	-	-
3		End	Pump Down for recovery of refrigerant	-	-
4		-	End	-	-

* Use the K1 only for heat pump models.

Setting up option switches (Continued)

Reading data indicated on the display

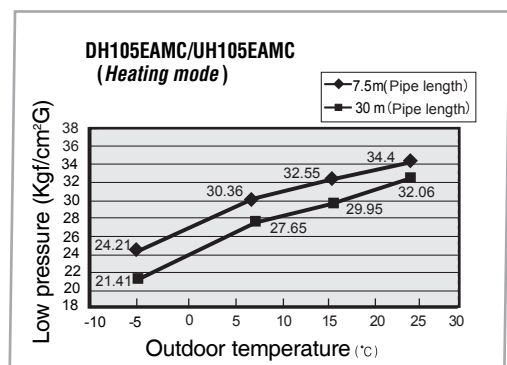
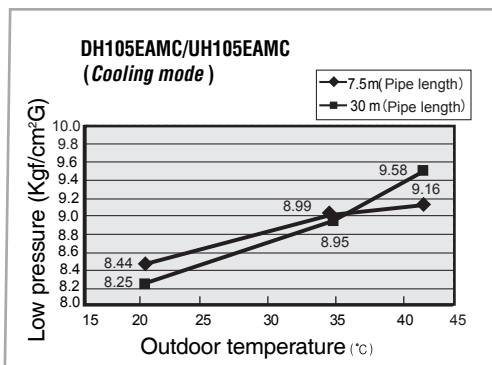
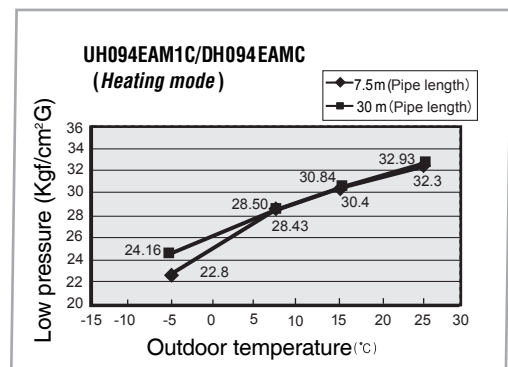
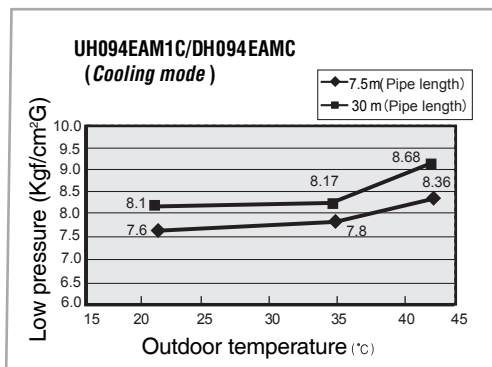
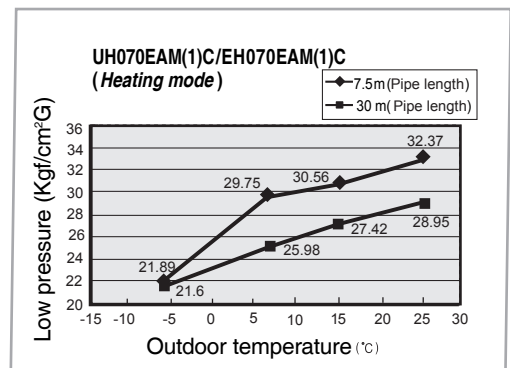
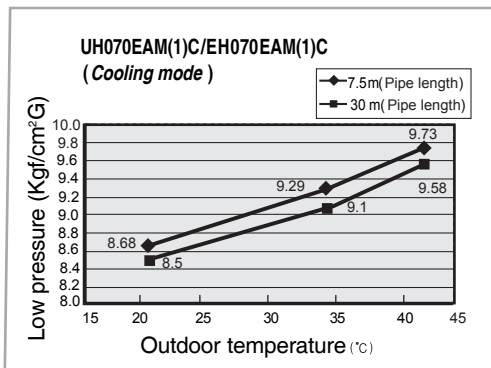
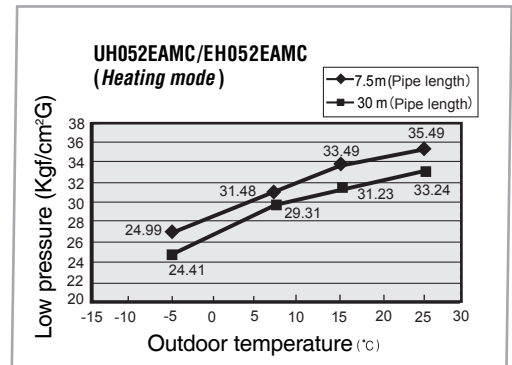
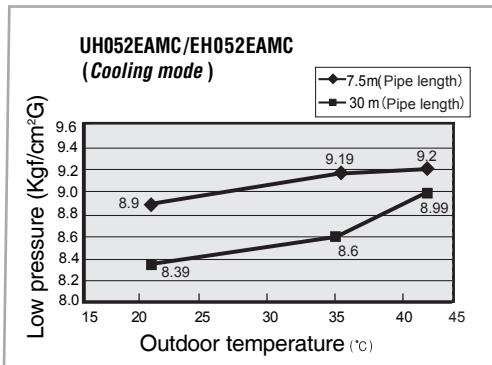
KEY	Number of press	Item	Example	
			Display	Meaning
K1	1	Adding refrigerant for heating mode	88 F1	
	2	Test operation for heating mode	88 F2	
	3	End	88 88	
K2	1	Adding refrigerant for cooling mode	88 F3	
	2	Test operation for cooling mode	88 F4	
	3	Pump Down for recovery of refrigerant	88 F5	
	4	End	88 88	
K3		Reset	88 88	
K4	1	Discharge temperature of compressor	34.10	110 °C
	2	Temperature of outdoor heat exchanger	48.38	38 °C
	3	Outdoor temperature	58.34	34 °C
	4	Step of electronic expansion valve (0 step : all closed, 480 step : all open)	68.12	120STEP (12 x 10)
	5	Temperature of evaporator	7.9.82	-2 °C
			78.12	12 °C
	6	Indoor temperature	88.22	22 °C
	7	Stopping view mode & display communication data	88 88	

Testing operations

- 1 Check the power supply between the outdoor unit and the auxiliary circuit breaker.
 - ◆ Single phase power supply: L, N
- 2 Check the indoor unit.
 - 2-1 Check that you have connected the power and communication cables correctly. (If the power cable and communication cables are mixed up or connected incorrectly, the PCB will be damaged.)
 - 2-2 Check the thermistor sensor, drain pump/hose, and display are connected correctly.
- 3 Connect the outdoor unit to your computer where the provided software is installed, then supply power to the outdoor unit.
- 4 If the outdoor unit is powered on, it will start tracking to check user's option(s) and number of indoor unit.
 - At this time, the SEG 1 and SEG 2 on outdoor unit PCB display the number of indoor unit registered and the SEG 3 and SEG 4 display the number of indoor units which responded.
 - If an error mode is displayed, fix the error according to the service manual.
- 5 Check the thermistor sensor, electronic expansion valve by using the computer.
- 6 Press K2 on the outdoor unit PCB.
 - If you press K2, the compressor starts operation.
Operate the compressor for 20 minutes, then add refrigerant according to the graph shown on page 18~19.
 - If you press K2 again, test operation is started.
 - If you don't stop the operation of adding refrigerant, it will be stopped automatically after 1 hour.
 - If you don't stop test operation, it will be stopped automatically after 1 hour.
 - If K2 is pressed during the operation of adding refrigerant, test operation is started without compressor stopping. Therefore, start test operation after the operation of adding refrigerant.
 - The compressor can be operated after completely 3-minute preparation and tracking.
 - When testing operations at Heating Mode, press K1 instead of K2.
- 7 Check that indoor and outdoor temperatures, step of electronic expansion valve and operation of compressor by using the computer.
- 8 Check that there is any error mode in the outdoor unit PCB during the test.
 - You should test operations for more than 30 minutes.
 - Check that the water dripping from the drain hose runs away correctly and safely.
- 9 To complete the test, press the test operation KEY(K2) again.

Testing operations

Graph of pressure depending on outdoor temperature



Troubleshooting

Outdoor unit

- ◆ If an error occurs during the operation, it is displayed on the outdoor unit PCB.

Display	Explanation	Remark
$E_r \leftrightarrow P0$	High temperature of Discharge (Protection control)	Error about protection control of outdoor unit
$E_r \leftrightarrow P1$	High temperature of outdoor heat exchanger (Protection control)	
$E_r \leftrightarrow P3$	Low pressure of outdoor (Protection control)	
$E_r \leftrightarrow P4$	Reverse phase error (Protection control)	
$E_r \leftrightarrow P5$	COMP DOWN to protect being frozen	
$E_r \leftrightarrow P6$	Instant power supply failure (Power on/ off)	
$E_r \leftrightarrow P9$	In removing frost	
$E_r \leftrightarrow t1$	Error of OUT TEMP sensor (OPEN/SHORT)	Errors about outdoor unit sensor (OPEN/SHORT)
$E_r \leftrightarrow t2$	Error of temperature sensor in outdoor heat exchanger (OPEN/SHORT)	Detection during the operation of indoor unit (Sensing and sending errors into the communication data)
$E_r \leftrightarrow t3$	Error of Discharge TEMP sensor (OPEN/SHORT)	
$E_r \leftrightarrow E1$	System Down caused by communication error after completion of tracking	
$E_r \leftrightarrow E2$	Mismatching of the indoor unit numbers set with those communicated after completion of tracking	Communication and indoor unit errors
$E_r \leftrightarrow E3$	Error of float switch in indoor unit	
$E_r \leftrightarrow E5$	Error of setting option switches for optional accessories	
$E_r \leftrightarrow E6$	Indoor units communication error	Indoor units communication error
$E_r \leftrightarrow q_x$	OPEN/SHORT error of room sensor in indoor unit	Self-diagnosis of indoor and outdoor unit (x:indoor unit address)
$E_r \leftrightarrow r_x$	OPEN/SHORT error of eva in sensor in indoor unit	
$E_r \leftrightarrow u_x$	Error of fan starting	
$t_r \leftrightarrow G4$	Open error of electronic expansion valve in outdoor unit (Detected once or more times)	
$t_r \leftrightarrow G5$	Close error of electronic expansion valve in outdoor unit (Detected once or more times)	Displays of operating status
t_u Flicker	(Detected once or more times)	
t_o Flicker	Below -5°C when cooling (Outdoor temperature)	
t_o Flicker	Over 30°C when heating (Outdoor temperature)	
K1, K2, K3, K4, K5 Flicker	Displays of Key mode and emergency operating	

The order of priority : E1 → E2 → E5 → E6 → P0 → P1 → P3 → P5 → P4 → P9 → P6 → t1 → t2 → t3 → tu → to → G4 → G5 → E3 → qx → rx → vx → K1, K2, K3, K4, K5







- In case that the same error displays from multi-indoor units, the one having the faster address has the priority.

Optional parts list

Receiver & Display Unit Accessories

Concealed type








◆ Receiver & display unit

Receiver & display unit	STS 2S-2x10 tapped screw	2S-4x12 tapped screw	Owner's instructions	Installation manual	Wire kit
1	4	2	1	1	1
					

◆ Wire kit







Standard type

◆ Receiver & display unit




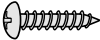





Receiver & display unit	M4x16 tapped screw	Cable-tie	Cable clamp	Owner's instructions	Installation manual	Wire kit
1	7	2	5	1	1	1
						

◆ Wire kit







Wireless Remote Controller Accessories

Wireless remote controller	Battery	Remote control holder	STS 2S-2x10 tapped screw	Owner's instructions	Installation manual
1	2	1	2	1	1
					







Wired Remote Controller Accessories

Wired remote controller	Cable-tie	Cable clamp	M4x16 tapped screw	Indoor unit power drawing cable
1	2	5	7	1
				
Communication cable of the wired remote controller	Wire joint	Owner's instructions	Installation manual	
1	1	1	1	
				

Centralized Controller Accessories

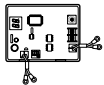



Centralized controller	Cable-tie	Cable clamp	M4x16 tapped screw	Owner's instructions	Installation manual
1	2	5	7	1	1
					

Function Controller Accessories

Function controller	Cable-tie	Cable clamp	M4x16 tapped screw	Owner's instructions	Installation manual
1	2	6	7	1	1
					







Optional parts list (Continued)

Transmitter Accessories

Transmitter	Transmitter power cable	Transmitter communication cable	Installation manual
1	1	1	1
			

Note ♦ If you would like to install the centralized controller, you must install the transmitter in the outdoor unit.

7-day Scheduler Accessories

7-day Scheduler	Cable-tie	Cable clamp	M4x16 tapped screw	Owner's instructions	Installation manual
1	2	2	4	1	1
					



ELECTRONICS